

Lecture #17

Date: Oct 20, 25

Day: Monday

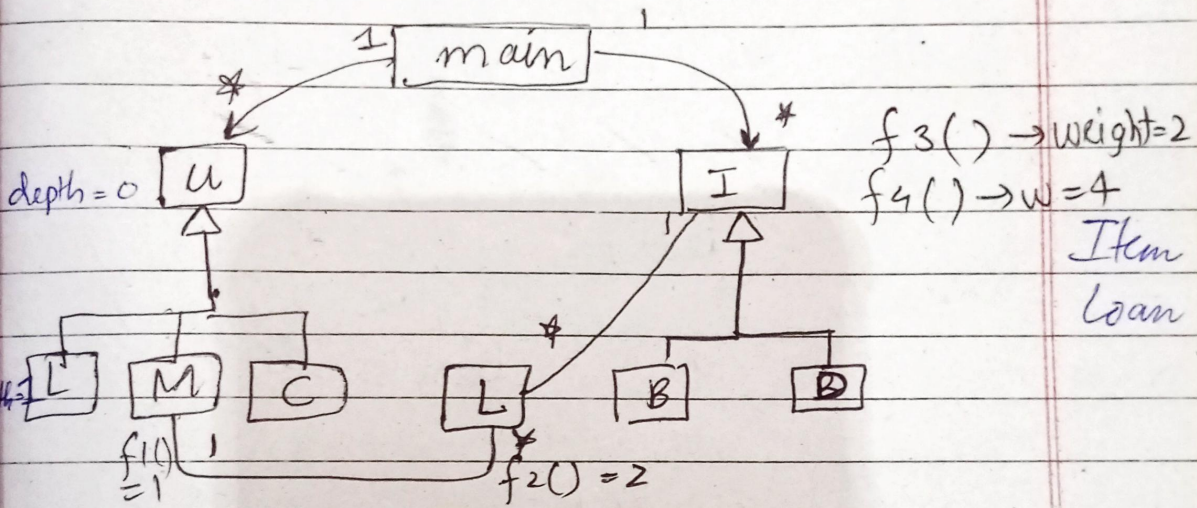
CK - Metrics :

Object-oriented measurements of measure quantity of code and/or design.

- | | |
|----------|----------------------------|
| 1) WMC (| 4) NOC (no. of children) |
| 2) RFC | 5) CBO (coupling b/w objs) |
| 3) DIT | 6) LCOM |

Tools :

- | | |
|---------------|-----------------------------|
| 1) CCCC | 2) SonarQube |
| 3) Understand | 4) RSA (Rust code Analysis) |



5) Coupling b/w objects :

I has CBO = 4
D " " = 2 ..

Date: _____

		Member	Loam	Day
*	CBO	2	2	Item
*	WMC	1	2	4
*	DIT	1	0	5
*	RFC	2	3	0
*	NOC	0	0	3
*	LCOM ?			2

sum of weights of ---

→ how many func. a class have.

should
less

→ **Weighted method** Per class: (WMC)
 Functions count of a class
 children class main parent ka
 WMC count nahi hota (its individual)

should
less

→ **Depth of Inheritance Tree**: (DIT)
 kind of coupling

→ **Response for a class**: (RFC)
 function calls.

functions main function calls ?
 kitni hain?

```

f3 ( ) {
    a. foo ( ) ;
    b. bar ( ) ;
}

```

```

f4 ( ) {
    c. f7 ( ) ;
}

```


NOC : no. of children:
how many children a class have?

→ LCOM : Lack of cohesion of methods
→ in simple words: yeh cohesion hi hai.
(Amir Raheem)
→ Groups of function & variables. 20-10-25

→ LCOM 2

```
class Car {  
    int r;  
    int (l, w);
```

```
    int area() {  
        return PI * r * r;  
    }
```

```
    int circum() {  
        return 2 * PI * r;  
    }
```

r, area,
circum
grp 1

```
    int (arearec) {  
        return l * w;  
    }
```

l, w
arearec
grp 2.